

Sarepta investors party like it's 2015



[Jonathan Gardner](#)

All credit to Sarepta – it really knows how to tell a story that earns it investor love. Another round of early data – accompanied by Duchenne muscular dystrophy patient videos – from its first-in-human studies of its microdystrophin gene therapy programme added another \$3bn to its market valuation today.

It might be a stretch to call these findings anecdotal, as they were accompanied by clear positive biomarkers, but data from just three patients are rather early for investors to be assuming that this will be a rousing success. Still, the Massachusetts-based group remembers the scepticism that surrounded its first DMD agent, Exondys 51, and this time plans on having a placebo-controlled trial to try to put any doubts to rest.

Investor enthusiasm pulled along Solid Biosciences, which benefited not only from news that the FDA had lifted the hold on the clinical trial of SGT-001, but also the positive data for micro-dystrophin targeted DMD gene therapy in general. Shares in Solid rose 63% in early trading today.

Winner

It ought to raise some eyebrows that Sarepta's presentation was made in the message-controlled setting of an investor R&D day, rather than under the peer-reviewed scrutiny of a scientific publication or meeting. Nevertheless, what the company revealed today should be taken as a big win.

The group was able to show that 1.6 vector copies from its agent, now codenamed AAVrh74.MHCK7.micro-dystrophin, reached every cell measured in three patients, which tested using immunohistochemistry found micro-dystrophin expression of 76.2% versus normal control patients; by Western blot analysis the figure was 38.2%.

Both were well above the 15% expression level that Leerink analyst Joseph Schwartz viewed as a “home run” scenario. Along with normalisation of creatine kinase levels in four patients – the enzyme is a biomarker for muscle damage – after 90 days, this means that Sarepta has presented “a compelling efficacy picture in total”, Mr Schwartz wrote in a note to clients today.

The main safety issue raised was elevated levels of the liver enzyme gamma-glutamyl transferase, but none reached the level of three times the upper limit of normal that would qualify as a serious adverse event, said Dr Jerry Mendell, of the Nationwide Children's Hospital's gene therapy centre.

The trial, primarily a phase I/II safety study, had two cohorts – one made up of six patients aged three months to three years, and a second including six patients aged between four and seven. The difference between the two is that the older patients would have started steroid therapy and need to show improvement against that backbone. The data presented today were from the older cohort.

Addressing the sceptics

Dr Mendell said this study would begin enrolling a third cohort of 24 older patients. Half will be treated with placebo, and will cross over to active treatment after one year. As Sarepta won approval of its marketed DMD drug Exondys 51 on uncontrolled efficacy data from just 25 patients, there is every reason to believe that it could submit results from the three cohorts, if positive, to the US FDA for approval.

The strength of these early data proves, ironically, how weak the case was for the exon-skipping approach of Exondys 51 and just how fortunate Sarepta was to win its approval; another company focusing on exon-skipping, Wave Life Sciences, fell 12% today following Sarepta's presentation.

Should gene therapy win approval, Sarepta investors might not care about the fate of Exondys 51 – but maybe they ought to take a moment to thank the FDA for giving Sarepta the boost it needed to make the next generation of DMD agents possible.

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